



## Request for Proposals (RfP)

**Part A: Collection of (meta-) data on water (meteo-) and river system monitoring network, Ca and Ma rivers, Viet Nam and assessment of its functionalities and performance.**

and

**Part B: Options for Monitoring Network improvements and data sharing arrangements for the water (the river systems, and including meteo) monitoring network, Neun-Ca and Ma rivers, Viet Nam and Lao PDR**

Viet Nam Country Office, Hanoi / Lao PDR Country Office, Vientiane

Reference: IUCN 3-02-2025 DR03794.C5 Fostering Water and Environmental Security in the Ma and Neun - Ca Transboundary River Basins and Related Coastal Areas

Welcome to this Procurement by IUCN.

**This procurement is open for consultants - national experts from Lao PDR and Vietnam only. (applies to Part A and Part B.)**

You are hereby invited to submit a Proposal. Please read the information and instructions carefully because non-compliance with the instructions may result in disqualification of your Proposal from this Procurement.

### 1. Requirements

A detailed description of the services and/or goods to be provided can be found in **Annex 1** and **Annex 2**.

### 2. Contact Details

During the course of this procurement, i.e. from the publication of this RfP to the award of a contract, you may not discuss this procurement with any IUCN employee or representative other than the following contact. You must address all correspondence and questions to the contact, including your Proposal.

IUCN Contact : Mr. Rien Dam, CTA, Ca-Ma project, [rien.dam@iucn.org](mailto:rien.dam@iucn.org), cc. [Nhung.phamhong@iucn.org](mailto:Nhung.phamhong@iucn.org)

### 3. Procurement timetable

This timetable is indicative and may be changed by IUCN at any time. If IUCN decides that changes to any of the deadlines are necessary, we will publish this on our website and contact you directly if you have indicated your interest in this procurement.

DATE	ACTIVITY
February 3, 2025	Publication of the Request for Proposals
February 13, 2025	Deadline for submission of questions
February 15, 2025	Planned publication of responses to questions
<b>February 24, 2025</b>	<b>Deadline for submission of Proposals to IUCN ("Submission Deadline")</b>
February 28, 2025	Planned date for contract award
March 1, 2025	Expected contract start date

Please email the IUCN contact to express your interest in submitting a Proposal by the deadline stated above. This will help IUCN to keep you updated regarding the procurement.

#### 4. Completing and submitting a proposal

Your Proposal must consist of the following four (4) separate documents:

- Signed Declaration of Undertaking (**see Attachment 2**)
- Technical Proposal and CVs of the designated experts (see Section 4.1 below)
- Financial Proposal (see Section 4.2 below)

Proposals must be prepared in English.

Your Proposal must be submitted by email to the IUCN Contact (see Section 2). The subject heading of the email shall be [RfP Reference – bidder name]. The bidder's name is the name of the company/organisation on whose behalf you are submitting the Proposal, or your own surname if you are bidding as a self-employed consultant. Your Proposal must be submitted in PDF format. You may submit multiple emails suitably annotated, e.g. Email 1 of 3, if attached files are too large to suit a single email transmission. You may not submit your Proposal by uploading it to a file-sharing tool.

##### 4.1 Technical Proposal

The Technical Proposal must address each of the criteria stated below explicitly and separately, quoting the relevant criteria reference number (left-hand column). Proposals in any other format will significantly increase the time it takes to evaluate, and such Proposals may therefore be rejected at IUCN's discretion. The Technical Proposal – Workplan part for Part A and Part B maximum length is **10 pages A4, letter size 11** (you can also use figures – diagrams).

CVs must be of the individuals who will actually carry out the work specified. The individuals you put forward may only be substituted with IUCN's approval.

IUCN will evaluate Technical Proposals with regards to each of the following criteria and their relative importance:

	Description	Information to provide	Relative weight
1	Activity Work Plan and Methodology	Work plan setting out the activities and tasks identified in the Technical Approach by week and/or month for the duration of the assignment, and showing timing and duration of inputs by subcontractors, if any are used. Maximum length 5 pages.	30%
2	Personnel Qualification	Short summary of the Consultant's academic qualifications and professional experience relevant to the assignment (maximum 2 pages). Short summary of the relevant qualifications and professional experience of any subcontractors who will be engaged by the Consultant (maximum 2 pages per subcontractor). CVs of the Consultant and the subcontractor(s) (if any).	50%
3	Past Performance and experience working with government	Evidence of similar assignments undertaken by the Consultant within the last 5 years (maximum 5 pages).  Contact details of 3 referees familiar with the Consultant's experience relevant to the assignment.	20%
TOTAL			100%

## 4.2 Financial Proposal

The Financial Proposal must be a fixed and firm price for the provision of the goods/services stated in the RfP in their entirety.

**The maximum budget available for this assignment (Part A) is USD 25,000 (Twenty-five thousand US dollars). The maximum budget available for the assignment (Part B) is USD 35,000 (Thirty-five thousand US dollars).** Only bids below this maximum amount will be taken into consideration.

Prices include all costs.

Submitted rates and prices are deemed to include all costs, insurances, taxes (except VAT, see below), fees, expenses, liabilities, obligations, risk and other things necessary for the performance of the Terms of Reference or Specification of Requirements. IUCN will not accept charges beyond those clearly stated in the Financial Proposal. This includes applicable withholding taxes and similar. It is your responsibility to determine whether such taxes apply to your organisation and to include them in your Financial Proposal.

### Applicable Goods and Services Taxes

Proposal rates and prices shall be exclusive of Value Added Tax.

Currency of proposed rates and prices: All rates and prices submitted by Proposers shall be in US Dollar (USD).

### Breakdown of rates and prices

All expenditures associated with this service will be managed by the selected service provider.

For information only, the price needs to be broken down as follows:

	Description	Quantity	Unit Price	Total Price
1				
2				
3				
	TOTAL			

Additional information not requested by IUCN should not be included in your Proposal and will not be considered in the evaluation.

Your Proposal must remain valid and capable of acceptance by IUCN for a period of **90 calendar days** following the submission deadline.

### Withdrawals and Changes

You may freely withdraw or change your Proposal at any time prior to the submission deadline by written notice to the IUCN Contact. However, to reduce the risk of fraud, no changes or withdrawals will be accepted after the submission deadline.

## **5. Evaluation of Proposals**

### **5.1 Completeness**

IUCN will firstly check your Proposal for completeness. Incomplete Proposals will not be considered further.

### **5.2 Technical Evaluation**

#### **Scoring Method**

Your Proposal will be assigned a score from 0 to 10 for each of the technical evaluation criteria, such that '0' is low and '10' is high.

#### **Minimum Quality Thresholds**

Proposals that receive a score of '0' for any of the criteria will not be considered further.

#### **Technical Score**

Your score for each technical evaluation criterion will be multiplied with the respective relative weight (see Section 5.4) and these weighted scores added together to give your Proposal's overall technical score.

### **5.3 Financial Evaluation and Financial Scores**

The financial evaluation will be based upon the full total price you submit. Your Financial Proposal will receive a score calculated by dividing the lowest Financial Proposal that has passed the minimum quality thresholds (see Section 5.3.2) by the total price of your Financial Proposal.

Thus, for example, if your Financial Proposal is for a total of USD 100 and the lowest Financial Proposal is USD 80, you will receive a financial score of  $80/100 = 80\%$

### **5.4 Total Score**

Your Proposal's total score will be calculated as the weighted sum of your technical score and your financial score.

The relative weights will be:

**Technical: 80%**

**Financial: 20%**

Thus, for example, if your technical score is 83% and your financial score is 77%, you will receive a total score of  $83 * 80\% + 77 * 20\% = 66.4\% + 15.4\% = 81.8\%$ .

Subject to the requirements in **Sections 4 and 7**, IUCN will award the contract to the bidder whose Proposal achieves the highest total score and have a No Objection Letter (NOL) from the project's Government partners.

## 6. Explanation of the procurement procedure

IUCN is using the Open Procedure for this procurement. This means that the contracting opportunity is published on IUCN's website and open to all interested parties to take part, subject to the conditions in Section 7 below.

You are welcome to ask questions or seek clarification regarding this procurement. Please email the IUCN Contact (**see Section 2**), taking note of the deadline for submission of questions in **Section 3**.

All Proposals must be received by the submission deadline in **Section 3** above. Late Proposals will not be considered. All Proposals received by the submission deadline will be evaluated by a team of evaluators in accordance with the evaluation criteria stated in this RfP. No other criteria will be used to evaluate Proposals. Unless the consultant objects in writing, the proposals will be shared with the Government partners.

The contract will be awarded to the bidder whose Proposal received the highest Total Score and has a No Objection Letter (NOL) from the Government partners. **IUCN does, however, reserve the right to cancel the procurement and not award a contract at all.**

IUCN will contact the bidder with the highest-scoring Proposal and with a No Objection Letter from Government partners to finalise the contract. We will contact unsuccessful bidders after the contract has been awarded and provide detailed feedback. The timetable in Section 3 gives an estimate of when we expect to have completed the contract award, but this date may change depending on how long the evaluation of Proposals takes.

## 7. Conditions for participation in this procurement

To participate in this procurement, you are required to submit a Proposal, which fully complies with the instructions in this RfP and the Attachments.

It is your responsibility to ensure that you have submitted a complete and fully compliant Proposal.

Any incomplete or incorrectly completed Proposal submission may be deemed non-compliant, and as a result you may be unable to proceed further in the procurement process.

IUCN will query any obvious clerical errors in your Proposal and may, at IUCN's sole discretion, allow you to correct these, but only if doing so could not be perceived as giving you an unfair advantage.

In order to participate in this procurement, you must meet the following conditions:

- Free of conflicts of interest
- Registered on the relevant professional or trade register of the country in which you are established (or resident, if self-employed).
- In full compliance with your obligations relating to payment of social security contributions and of all applicable taxes.
- Not been convicted of failing to comply with environmental regulatory requirements or other legal requirements relating to sustainability and environmental protection.
- Not bankrupt or being wound
- Never been guilty of an offence concerning your professional conduct
- Not involved in fraud, corruption, a criminal organisation, money laundering, terrorism, or any other illegal activity.

You must complete and sign the Declaration of Undertaking (**see Annex 3**).

If you are participating in this procurement as a member of a joint venture, or are using sub-contractors, submit a separate Declaration of Undertaking for each member of the joint venture and sub-contractor, and be clear in your Proposal which parts of the goods/services are provided by each partner or sub-contractor.

Each bidder shall submit only one Proposal, either individually or as a partner in a joint venture. In case of joint venture, one company shall not be allowed to participate in two different joint ventures in the same procurement nor shall a company be allowed to submit a Proposal both on its behalf and as part of a joint venture for the same procurement. A bidder who submits or participates in more than one Proposal (other than as a subcontractor or in cases of alternatives that have been permitted or requested) shall cause all the Proposals with the bidder's participation to be disqualified.

By taking part in this procurement, you accept the conditions set out in this RfP, including the following:

- It is unacceptable to give or offer any gift or consideration to an employee or other representative of IUCN or the project's government partners as a reward or inducement in relation to the awarding of a contract. Such action will give IUCN the right to exclude you from this and any future procurements, and to terminate any contract that may have been signed with you.
- Any attempt to obtain information from an employee or other representative of IUCN concerning another bidder will result in disqualification.
- Any price fixing or collusion with other bidders in relation to this procurement shall give IUCN the right to exclude you and any other involved bidder(s) from this and any future procurements and may constitute a criminal offence.

## **8. Confidentiality and Data Protection**

IUCN follows the European Union's General Data Protection Regulation (GDPR). The information you submit to IUCN as part of this procurement will be treated as confidential and shared only as required to evaluate your Proposal in line with the procedure explained in this RfP, and for the maintenance of a clear audit trail. For audit purposes, IUCN is required to retain your Proposal in its entirety for 10 years after the end of the resulting contract and make this available to internal and external auditors and donors as and when requested.

In the Declaration of Undertaking (Attachment 2) you need to give IUCN express permission to use the information you submit in this way, including personal data that forms part of your Proposal. Where you include personal data of your employees (e.g. CVs) in your Proposal, you need to have written permission from those individuals to share this information with IUCN, and for IUCN to use this information as indicated in 8.1. Without these permissions, IUCN will not be able to consider your Proposal.

## **9. Complaints Procedure**

If you have a complaint or concern regarding the propriety of how a competitive process is or has been executed, then please contact [procurement@iucn.org](mailto:procurement@iucn.org). Such complaints or concerns will be treated as confidential and are not considered in breach of the above restrictions on communication (Section 2).

## **10. Contract**

The contract will be based on IUCN's template in Attachment 3, the terms of which are not negotiable. They may, however, be amended by IUCN to reflect requirements from the donor funding this particular procurement.

## **11. About IUCN**

IUCN is a membership Union uniquely composed of both government and civil society organisations. It provides public, private and non-governmental organisations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together.

Headquartered in Switzerland, IUCN Secretariat comprises around 1,000 staff with offices in more than 50 countries.

Created in 1948, IUCN is now the world's largest and most diverse environmental network, harnessing the knowledge, resources and reach of more than 1,300 Member organisations and some 10,000 experts. It is a leading provider of conservation data, assessments and analysis. Its broad membership enables IUCN to fill the role of incubator and trusted repository of best practices, tools and international standards.

IUCN provides a neutral space in which diverse stakeholders including governments, NGOs, scientists, businesses, local communities, indigenous people's organisations and others can work together to forge and implement solutions to environmental challenges and achieve sustainable development.

Working with many partners and supporters, IUCN implements a large and diverse portfolio of conservation projects worldwide. Combining the latest science with the traditional knowledge of local communities, these projects work to reverse habitat loss, restore ecosystems and improve people's well-being.

[www.iucn.org](http://www.iucn.org)

<https://twitter.com/IUCN/>

## **Annexes**

Annex 1	Specification of Requirements / Terms of Reference, Assignment Part A
Annex 2	Specification of Requirements / Terms of Reference, Assignment Part B
Annex 3	Declaration of Undertaking (select 3a for companies or 3b for self-employed as applicable to you)
Annex 4	Contract Template (3a: Companies; 3b: Individual consultant)



## Annex 1.

### Terms of Reference (ToR) for consulting assignment (Part A)

**Part A: Collection of (meta-) data on water (including meteo) and river system monitoring network, Ma and Neun-Ca rivers, Viet Nam and assessment of its functionalities and performance.**

This procurement is open for consultants - national experts from Lao PDR and Vietnam only.

Date: January 2025

### Introduction

IUCN Vietnam as Executing Agency is responsible for the implementation of the 'Fostering Water and Environmental Security in the Ma and Neun-Ca Transboundary River Basins and Related Coastal Areas, Vietnam and Lao PDR' (hereafter, *Ma and Neun-Ca project*). The project started early 2024 and will be implemented in 5 years, with diverse activities in Lao PDR and in Viet Nam. GEF is the donor organisation and FAO is the Implementing Agency and the national government partners are the Ministry of Natural Resources and Environment (MONRE) Viet Nam and MONRE Lao PDR.

The main objective of the Ma and Neun-Ca project is to enable Vietnam and Lao PDR to address freshwater resource management and ecosystem health in the transboundary Neun – Ca and Ma river basins and coastal zones by creating an enabling environment for transboundary cooperation and action. The PMU project office is in Hanoi. Details of the integral project scope, objectives and activities can be shared on request.

### Scope of the Assignment

The Results Framework of the project specifies project's Output 2.3 as: *Harmonized design of multi-purpose monitoring networks, and joint monitoring and data-sharing protocols*. To work towards achieving this output, **first the project will conduct an assessment of the current monitoring networks in Vietnam, for the two river systems, their tributaries and the relevant parts of the coastal zone.**



Figure 1: Map of the two river basins. Note: some important tributaries are not shown.

**Assignment: Assessment of the current monitoring networks, quality of data collection, river monitoring system functionality and performance (mostly desk study).**



## **Objectives of the Assignment**

The objective of this Assignment is to collect relevant (meta)data on the water monitoring network to assess the current meteo-hydrological monitoring systems and surface- and ground water monitoring networks, to better understand the current infrastructure status, and system functionalities and performance.

There are different monitoring systems in place in both river basins to oversee the water resources sector, including Hydro-meteorological, water resources, and environmental stations. The Hydro-meteorological and water resources stations monitor both water quantity and quality, while the environmental stations focus solely on measuring water quality. These monitoring stations are operated by various state departments and agencies, such as the HydroMet Department, NAWAPI, and VEA. They are a crucial part of the infrastructure and data collection activities under MONRE, known as the 'National Monitoring System'. Other data collection and monitoring stations are referred to as the "thematic monitoring system," which is conducted by provinces, ministries (MARD and MoIT), and water users. In this system, MARD and its affiliated organizations (DARD, Irrigation companies, etc.) play the most important role, see Figure 2.

Also, hydropower companies/reservoir operators collect data on reservoir in- and outflow. Finally, there might be some provincial agencies that may independently collect data on the river system, irrigation intakes, water quality, groundwater exploitation or other purposes.

This assignment concerns the collection and analysis of (meta) data on all monitoring network components (surface water, groundwater, water quality, and meteo- monitoring system) on the Ma and Ca rivers basin (only Viet Nam territories). **A separate but similar assignment will be executed for data collection in the Lao PDR part of the river basins. IUCN-PMU will make sure that the results of both assignments will be shared.**

A range of simple, to more complicated questions need to be answered. As initial guidance the matrix structure in Figures 2 and 3 can be used. The focus of this assignment is on the currently existing networks – data collection and including an outlook on what are significant developments ongoing and in the next 3-10 years (a number of government decrees have been issued that guide the construction and activation of a considerable number of new monitoring stations).

## **Tasks and Activities**

Before performing all Task and Activities, the consultant will have a meeting with IUCN's PMU team (Hanoi). The consultant will be required to perform the following Tasks and Activities.

### **Task 1: Desk review and survey**

**Activity 1.1: Collection and review** of available documentation on meteo-hydrological and water monitoring systems and networks, including data measurements, processes, procedures, managements and sharing mechanisms, as well as roles of operation and management agencies and stakeholders.

To perform this activity, the consultant should focus on, but not limited to, the following:

- (i) The monitoring systems and networks in both river basins, which oversee the water resources sector. This includes hydro-meteorological, water resources, and environmental stations. Hydro-meteorological and water resources stations monitor both water quantity and quality, while environmental stations focus exclusively on water quality. Meanwhile, the water allocation monitoring also needs to be considered.
- (ii) The monitoring systems and networks operated by state departments and agencies, including the National Centre for Hydro-Meteorological Forecasting (NCHMF), the Northern Centre for Hydro-Meteorological Forecasting, the HydroMet Department, and

the National Centre for Water Resources Planning and Investigation (NAWAPI). Together, these organisations form crucial components of the infrastructure and data collection activities under MONRE. In general, these systems are considered as national monitoring systems

- (iii) The procedure of data collection and monitoring conducted, by Ministries MARD and MoIT, Provinces and other water users. MARD and its affiliated organisations such as DARD and Irrigation Management Companies play an important role in these monitoring activities, see Figure 2. In general, these systems are considered as thematic monitoring systems or local monitoring systems.
- (iv) The hydropower operators monitor reservoir inflows and outflows.
- (v) Provincial agencies independently collect data on the river system, irrigation intakes, water quality, groundwater exploitation.
- (vi) Additionally, the role of the Vietnam Energy Association (VEA) needs to be considered in the overall monitoring framework (concerning data collection, analysis, integration).

National monitoring network	MONRE	MARD	MoIT	Provinces	Others
Meteo-Hydro	(VNMHA) and sub-divisions				
Surface water resources	NAWAPI and sub-divisions				
Groundwater resources	NAWAPI and sub-divisions				
Water quality-related Environment	The Pollution Control Department (PCD)				
Surveillance water resource abstraction monitoring system	DWRM			DONRE	license owners
Inter-reservoir operation procedure on the major river basins	DWRM			DONRE	Hydropower dam/reservoir owners
<b>Thematic monitoring networks</b>					
Meteo-Hydro	DONRE	DARD		DONRE	
Surface water resources	DONRE	DARD		DONRE	
Groundwater	DONRE			DONRE	
Water quality-related Environment	DONRE	DARD		DONRE	
Reservoirs, Hydropower dam, irrigation works monitoring		DARD and irrigation limited company	DoIT?		

*Figure 2: Systematising the management and operation units of the monitoring network on Ma and Ca river basins.*

**Activity 1.2:** Develop (meta-) data collection methodology and conduct survey to related agencies.

The consultant should develop the (meta-)data collection methodology, which includes questionnaire and interview to the related agencies, and implementation plan. In many cases, interviews are necessary, thus, the consultant should also develop an interview method to the related agencies. The methodology should be designed to collect the following information:

1. Where are the monitoring stations? (operational since when, which parameters, what happens with the data). Provide maps (preferably GIS shapefiles) and data files.
2. What kind of data are collected and what is the quality (completeness: is the time series complete or are there interruptions, what about the frequency (of collecting?) of data time series?
3. What happens with the data? Who is the owner? Are there data sharing arrangements, for instance with MONRE's HydroMet Dept? If necessary for important data sets, conduct an interview with the data owner.
4. What kind of data and information management tools are used? Software? What are the functionalities of this software; who is/are the owners, and users?
5. Relevant recent developments/improvements/upgrades of the monitoring system. Are there expected further developments in the near future, for instance already initiated or approved by MONRE or MARD (or other relevant government initiatives).

6. The specific data management tools and software, detailing functionalities like data storage, retrieval, integration, automation, and real-time monitoring and tools used for data visualisation and reporting.
7. Strategies or plans to develop/improve the monitoring systems, including recently approved decrees and regulations by MONRE or MARD or other related institutions and agencies, concerning ongoing and upcoming developments over the next 3-10 years.

### Activity 1.3: Conducting survey

The survey or interviews can be indirect (online, email) or direct (face-to-face) with the relevant agencies. The consultant, through the IUCN project management team, needs to contact the focal point of DWRM to get the support and authorization before conducting the interviews / survey.

The survey is not only focused on the collection of (meta-)data but also on understanding the availability of primary data. If possible, the consultant is required to collect public or free-sharing data of all mentioned monitoring systems and networks, e.g. maps display station locations and data files if available. Preferably, all data is collected and reported in digital formats which are easily managed.

### Task 2: (Meta-) data development and assessment

#### Activity 2.1: (Meta-) data development

All collected data and information should be generated in relevant format that can be easily used in common software, such as Ms-Excel. As a starting point, the matrix structure in Figure 3 can serve as guidance to develop the (meta-) data. The (meta-)data report should also contain links that indicate where the measured data and maps that were collected by the consultant are stored and in which format. Relevant geographical data should be presented in GIS shape files.

	summary	list of stations	list of stations	list of stations, name, coordinates, recording since....	
	Meteo-Weather	River Discharge	Water Quality	Groundwater	Other (Disaster ?)
<b>MONRE-HYDROMET</b>	National System				
Ca river		Ca river	Ca river	xx stations, mostly in the lowland area, see Map xx	
Ma river		Ma river	Ma river		
	Reference to Map				
<b>MARD</b>					
<b>DARD</b>					
External data providers Irrigation Companies, etc.					
<b>Provinces</b>					
Thanh Hoa					
Nge Anh					
Other					
<b>Reservoir Operators</b>					

Figure 3: Suggested matrix structure for the (meta-)data development.

## **Activity 2.2: Assessment**

This activity concerns the assessment and evaluation of the current monitoring systems and networks that were clarified in Task 1. Indicative assessment method, based on scoring of the criteria, is preferred for this Task. However, the consultant is free to choose any relevant assessment method. For the assessment, the following criteria should be considered:

1. Quality of measured and monitored data, focus on its completeness and interruptions in time series
2. The frequency of data collection and existence of gaps (interruption of data collection)
3. The river monitoring system or network functionality and performance.
4. The data and information management tools, especially software used, owners
5. The accessibility and usability, especially for non-technical users
6. Recent upgrades to the monitoring system and note any planned future developments approved by MONRE, MARD, or other authorities in the period of the next 3 - 10 years.

If any weakness or low scores are found, the consultant should propose possible improvements or solutions that would improve the overall performance of the monitoring networks (and may be considered for the further development of the monitoring networks by MONRE and related agencies).

## **Deliverables / Output format**

### **Output of Task 1:**

The consultant should prepare a **Data Review and Collection Report** in English, after completing all Activities of Task 1. The Report should indicate:

1. **Brief description** of existing monitoring systems and network, management agencies, types of measured and monitored data (e.g. water discharge, quality, and water allocation); identification of inconsistencies in data measurements and management, and reports on missing information or data; A list of state, local and private agencies involved; and an overview of existing data sharing mechanisms.
2. **Data collection methodology**
3. **List of collected data** along with information detailing the attributes and data sources, GIS shapefiles of relevant maps (if available) that visualise the monitoring network's coverage and performance, and their implications for the project's objectives.

### **Output of Task 2:**

1. **Meta-data** of the meteo-hydrological and water monitoring systems and networks in relevant format. Preferably, an overview would be in Ms-Excel sheets;
2. **Dataset of monitored data** that are collected during the survey, either in Ms-Excel, GIS formats or in other softcopy maps and documents.
3. **An integrated report in English** (hard and soft copy) including the result of the Review, Survey and Assessment. All Source materials (reports, meta-data) will be annexed (hard and soft copies) in this report.
4. **A summary presentation (PPT)** in English and Vietnamese,

**Presentation:** The consultant will be requested to present and discuss the intermediary and final results in meetings with IUCN's PMU, with the attendance of DWRM-MONRE representatives (max 3-hour meeting in Hanoi).

## **Implementation time**

The assignment will be for around 70 full days of consultants' time input (indicative), working as a desk study. Short field visits to conduct interviews with the monitoring station / data owners can be part of the execution tasks. The maximum budget available for this part of the assignment is **set at USD 25,000**. The assignment will preferably have **to be completed before May 30<sup>th</sup>, 2025**.

The consultant is free to appoint the required experts as deemed necessary. The assignment will start with a preparation meeting with IUCN's PMU team (Hanoi).

## **Expertise Requirements and Qualification**

The consultant should have the following expertise and experience:

- Extensive experience and/or knowledge on meteo-hydro monitoring systems and hydrological data collection and management, covering systems under the responsibility of MONRE, MARD, hydropower/reservoir operators (MOIT) and affiliated agencies, Provinces.
- Proven success working with national and local agencies on monitoring networks and data-sharing protocols. Strong track record of collaboration with water resources management agencies and departments.
- Extensive experience in water resource management, meteorological and hydrological monitoring, and river system analysis. Skilled in managing large water and climate datasets.
- Experience in international development projects focused on hydrological studies and system analysis. Skilled in collaborating with international organizations and supporting transboundary water resource management initiatives.
- Technical skill in hydrological modelling tools and GIS, with the ability to assess monitoring system performance.
- Good communication skills, including fluency in Vietnamese and English, ability to produce technical reports, and experience in developing data-sharing mechanisms and capacity-building initiatives with various stakeholders.

## **Application Submission**

Interested individuals – Vietnamese nationals, or organisations - are invited to submit their application – **in English**, including CV's of the designated experts, project references and a short proposal / comment on the assignment (maximum of 10 pages for Part A and Part B) stating their approach to the assignment. Relevant references about expertise and earlier project experience can be added in a separate document.

Financial proposal: The consultancy rate per day and month should be proposed in a separate document (financial proposal), clearly stating the total amount for the working days proposed.

Submit to: [rien.dam@iucn.org](mailto:rien.dam@iucn.org); [nhung.phamhong@iucn.org](mailto:nhung.phamhong@iucn.org); [manh.levan@iucn.org](mailto:manh.levan@iucn.org)

**Submission Deadline: February 24, 2025**

## **EVALUATION CRITERIA:**

Consultants will be evaluated based on:

1. Expert qualifications (CV's)



2. Relevant experience of the organisation(s) (project references)
3. Submitted proposal - Workplan
4. Budget proposed (Financial score)

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## Annex 2 (Part B)

### Terms of Reference (ToR) for consulting assignment:

**Part B: Options for Monitoring Network improvements and data sharing arrangements for the water (the river systems, and including meteo) monitoring network, Neun-Ca and Ma rivers, Viet Nam and Lao PDR.**

**For this assignment only national consultants/contractors from Vietnam and/or Lao PDR are eligible.**

Date: January 2025

### Introduction

IUCN Viet Nam (and Lao PDR) as Executing Agency is responsible for the implementation of the 'Fostering Water and Environmental Security in the Ma and Neun-Ca Transboundary River Basins and Related Coastal Areas, Viet Nam and Lao PDR'. The project started early 2024 and will be implemented in 5 years, with diverse activities in Lao PDR and in Viet Nam. GEF is the donor organization and FAO is the Implementing Agency and the national government partners are the Ministry of Natural Resources and Environment (MONRE) Viet Nam and MONRE Lao PDR.

The main objective of the Ca-Ma project is to enable Viet Nam and Lao PDR to address freshwater resource management and ecosystem health in the transboundary Neun – Ca and Ma river basins and coastal zones by creating an enabling environment for transboundary cooperation and action. The PMU project office is in Hanoi. Details of the integral project scope, objectives and activities can be shared on request.

The Results Framework of the project specifies project's Output 2.3 as: Harmonized design of multi-purpose monitoring networks, and joint monitoring and data-sharing protocols. To work towards achieving this output, first **an assessment of the current monitoring networks status** needs to be conducted. **This is Part A** of the assessment (See separate ToR, Annex 1) This second procurement is a follow-up assignment and concerns complementary tasks, for Viet Nam and also for Lao PDR. The geographical scope concerns the two river basins, their tributaries and the relevant parts of the coastal zone (Lao PDR and Viet Nam).



Figure 1: Map of the two river basins in Viet Nam and Lao PDR. Note: some important tributaries are not shown.

## **This assignment, Part B: Options for Monitoring Network improvements and data sharing arrangements**

There are different monitoring systems in place in both river basins to oversee the water resources sector, including hydro-meteorological, water resources, environmental stations, and water user's operations. The hydro-meteorological and water resources stations monitor both water quantity and quality, while the environmental stations focus solely on measuring water quality. The user's operation including hydropower, irrigation reservoirs, culverts, pumping stations, play significant important role in water resources management system

These monitoring stations are operated by various state departments and agencies, such as the HydroMet Department and DMH in Lao PDR, NAWAPI, and VEA. These are a crucial part of the infrastructure and data collection activities under MONRE, known as the 'National Monitoring System'. Other data collection and monitoring stations are referred to as the 'thematic monitoring system' which is conducted by provinces, ministries (MARD in Viet Nam, MAF in Lao PDR and possibly other ministries), and water users. In this system, MARD/MAF and its affiliated organizations (DARD, Irrigation companies, etc.) play the most important role. Also, hydropower companies/reservoir operators collect data on reservoir in- and outflow. Finally, there might be some Provincial agencies that may independently collect data on the river system, irrigation intakes, water quality, groundwater exploitation or other purposes.

First, IUCN is conducting an assessment of the current status of the monitoring network system, including the status of the data collection infrastructure, the status and quality of the collected data sets and how these data are being used for different functions (for instance in a specific software or information management system. The results of this assessment will be made available. This is Part A, and a separate assignment and it is published separately.

This **second assignment, Part B** focuses on obtaining:

- 1) proposals and concepts for useful improvements for the comprehensive monitoring, data storage, and data collection systems, including all 'owners' and subsystems, and
- 2) existing arrangements and proposals for (improved) data sharing for specifically the two river basins Ma and Neun-Ca, both within Viet Nam/Lao PDR (data sharing arrangements between different data owners) and **between Viet Nam and Lao PDR**.

The earlier analysis (Part A) will provide information about the system status and the collection and analysis of (meta) data on all monitoring network components (surface water, groundwater, water quality, and meteo-monitoring system) in the Ma and Ca river basins (Viet Nam territories; in a separate task, we are collecting similar information for the Lao PDR parts of the river basins).

The results of the monitoring networks status assessment in both countries will be made available the consultant as soon as these are available.

### **(1) Options for Monitoring Network and data collection improvements**

The ambition is to develop and have operational, an integrated, multi-purpose monitoring network for data collection, and data storage for the two river basins, with comprehensive functionality and in essence covering the water management needs for both riparian countries.

When designing possible improvements for the monitoring network, data collection, data storage and aggregation/analysis the following data needs may be considered:

- To detect and analyse freshwater trends (quality and quantity) in response to climatic fluctuations and water extractions.
- To collect and analyse data for oversight of hydropower schemes and water allocation for irrigation

- To monitor groundwater in aquifers and parts of aquifers subject to over-exploitation, and to understand interaction of surface and groundwater.
- To monitor water quality conditions and trends in densely populated areas, or to detect serious environmental disturbances for instance caused by mining operations.
- To understand and regulate water needs for water dependent ecosystems including riparian and coastal wetland areas.
- To collect data needed for water related hazards: floods and droughts; pollution and salinization.
- To collect water use data from different users (irrigation, domestic, industry, tourism, hydro-power, transportation, social economic) for further water allocation under different water supply conditions. The data include: water requirements at key reaches/offtakes in the system (human consumption, livestock, irrigation, industrial, navigation, fisheries), land use (irrigation, forest, urban, rural), the structures (water supply, hydropower, offtakes, groundwater well fields, drainage inputs, dams).

The improved monitoring networks should ensure a homogeneous, albeit sparse, coverage of the basin segments in each country.

Recommendations for improvements may include recommendations for improved network infrastructure, density, lay-out, and monitoring protocols but especially also for methods for data collection, data storage (data format, time step, time frame, quality and connection to properties mapping), and management systems, software for data analysis and for integration/visualization (for instance for flood early warning systems and water allocation plans).

Suggestions for improvements need to be semi-detailed (not just conceptual), with specific emphasis for the link between data needs on the one hand, and function (why are these data needed), and the required data analysis.

Furthermore, the emphasis generally has been on the use of ground-based monitoring and data collection (classical weather station, river gauges, etc.). However, in modern day water management the use of remotely sensed data (rainfall, evapotranspiration, land use, etc.) and other earth observation tools is becoming more common, especially in data scarce regions.

Last but not least, basic survey data (cross-section, catchment boundaries, topography, main river, major tributaries, major aquifer boundaries, polluted and degraded water sources, water extraction, wastewater discharge into water sources, water extraction inventory) also is crucial, practical information for decision makers.

As part of the core scope of this assignment improvements in monitoring and data collection approaches and methods that concern earth observation technology<sup>1</sup> (satellite data) should be investigated. It is not expected that such innovations will completely replace the practice of working with ground-based data, but the use of specific satellite data could help overcome issues of data scarcity and can be used to complement traditional data from ground-based monitoring systems. The aim is that this assignment will introduce and report on at least 2-3 applications of earth observation-based monitoring data that are:

- Applicable (technically and organisationally) in the Neun-Ca and Ma river basins (Viet Nam and Lao PDR). (i.e. not scientific/academic concepts on the use of satellite data

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<sup>1</sup> The ProDoc refers to FAO's WAPOR approach (Water Productivity through Open access of Remotely sensed derived data) a wide range of methodologies that may be regarded as inspirational, but that may not be directly applicable in Viet Nam and Lao PDR.

that are impossible to use in practice and implement by the currently mandated organisations). We need practical and realistic- feasible methods).

- Connect to existing functions and use of / need for monitoring data
- Complement or replace low-quality or non-existent ground-based data sets
- Form an example of common or shared data sets that are used by both countries in water management
- Sharing standard formats for water resources and water demand in the Neun-Ca and Ma river basins.

## **(2) Data sharing protocols and (real-time) data exchange mechanisms**

The second aim of this assignment is to collect and present information on existing national or international data sharing protocols and arrangements. This information should be relevant for the Ma and Neun-Ca river basins, and the envisaged further collaboration between Lao PDR and Viet Nam. (This is a core objective of the GEF-IW bilateral cooperation project). The project is inspired by and tries to build on earlier transboundary cooperation, for instance that of the MRC, and also the cooperation Viet Nam – Cambodia in the 3S river basins. There are other examples in the lower Mekong region.

Hence, one of the first tasks is provide an overview of existing and relevant national and international data sharing arrangements, including an assessment if these are relevant for and applicable in Ma and Neun-Ca river basins.

Further proposals for new data sharing arrangements need to be guided by the specific context of the Ma and Neun-Ca river basins but can be inspired by examples from elsewhere.

The upstream part of the Neun-Ca is located completely in Lao PDR, where there is, currently, very limited monitoring and data collection infrastructure. Upstream parts of Ma river system are located in Viet Nam, and in Lao PDR. Data needs in the downstream parts of both river systems are multipurpose, viz. should support a broad suite of data analysis and water management objectives (see above). Special attention may need to be given to data sharing arrangements for the hydropower sector, involving private sector parties.

The consultant will prepare detailed proposals for formal data sharing protocols (such as a concept MoU, with technical specifications).

Besides proposals for data sharing protocols (an agreement between parties), also the underlying data exchange mechanisms and required technology needs to be specified. How will the data be shared, what security protocols apply, what format/software, what hardware is needed (server capacity, internet speed, etc.), what data can be shared real-time and why ?, quality control, user rights, etc. Possibly, a relevant example is the Mekong Delta Data Centre in Viet Nam where shared data are managed and analysed.

Data sharing by itself is not a primary objective; the main objective is to mitigate problems and improve water management in the river basins, and to be able to do this effectively, there is a need to have good and comprehensive data. Therefore, the possible and proposed data sharing arrangements should be discussed and developed in consultation with national, provincial and local water managers that can identify and prioritize key river basin water management issues. It is expected that these viewpoints will be quite different in Lao PDR and in Viet Nam, or in upstream parts of the river basin versus downstream parts.

In this analysis there are functional issues (What is the purpose or function to share certain data?) and there are also institutional issues (the institutional context, viz. the relationships



between parties sharing data, and on what legal basis, if any, data sharing arrangements can be set up.

### **Deliverables (covering Part B)**

The consultant (or consultants) should report the results of the analysis and various proposals in clearly structured report(s).

- (1) Part one of the report (or the first report), should cover the options for Monitoring Network improvements; guidance for the expected content is provided above.
- (2) Part two of the reporting should cover the data sharing protocols and (real-time) data exchange mechanisms including the data framework and data portal concepts.

The reporting should include (possibly in an Annex) recording/transcripts of interviews/meetings with data owners/users.

The assignment will be for around 100 full days (indicative) of consultants' time input, working as a desk study, with meetings/interviews with relevant parties. The assignment will have to be completed preferably before the end of June 2025.

The consultant is free to appoint the required experts as deemed necessary. The assignment will start with a preparation (Teams) meeting with IUCN's PMU and DWRM/DWR teams (Hanoi/Vientiane). Short field visits to conduct interviews with specific data owners / users can be part of the execution tasks.

The maximum budget available for this assignment is **USD 35,000 (Thirty-five thousand US dollars)**. Only bids below this maximum amount (including all costs) will be taken into consideration. An indicative number of around 100 days of work applies.

### **Progress meetings and output format**

The consultant is asked to prepare and participate in 3-4 progress meetings (monthly or depending on the progress) with the national government partners and IUCN PMU team.

The consultant will prepare an integrated final report in English and Vietnamese (hard and soft copy). Preferably, source materials (reports, database output, overview of data in Excel sheets or other software) will be provided (hard and soft copies); if possible relevant maps will be provided as GIS shape files.

A summary presentation (PPT) in English and Vietnamese and Lao will also be prepared.

The consultant will be requested to present and discuss the final results in a meeting with IUCN's PMU, with MONRE representatives attending (max 3-hour meeting in Hanoi or Vientiane).

### **Contractor Expertise and Experience**

The consultant should have the following expertise and experience:

- Extensive experience and/or knowledge on hydro-meteo monitoring systems and hydrological data collection and management, covering systems under the responsibility of MONRE, MARD/MAF/Other, hydropower/reservoir operators (MOIT/MoE) and affiliated agencies, provinces in both Vietnam and Lao PDR.
- Extensive experience and/or knowledge on developing legal and policy framework such as water resources law and water resources planning to understand the roles of different water agencies from national, local and river basin level.

- Demonstrable experience in similar assignments (water, weather, river, data collection, integration).
- Experience working on international development projects, in particular on hydrological studies and system analysis.
- Demonstrable practical experience working with government partners on relevant topics, such as water governance and management, the water abstraction and use surveillance system, the system for optimizing and regulating inter-reservoirs in the river basin, and the information system for supporting decision-making and data portal development.
- Extensive experience in developing and improving the data-sharing framework, particularly in data-sharing platforms, data storage, data analysis, and data visualization.

### **Application submission**

Interested individuals – Vietnamese or Lao PDR nationals, or organisations - are invited to submit their application – **in English**, including CV's of the designated experts, project references and a short proposal / comment on the assignment, stating their approach to the assignment. Relevant references about expertise and earlier project experience can be added in a separate document.

**Financial proposal:** The consultancy rate per day and month should be proposed in a separate document, with specification of the consultants inputs and costs for Part A and Part B.

Submit to: [rien.dam@iucn.org](mailto:rien.dam@iucn.org); [nhung.phamhong@iucn.org](mailto:nhung.phamhong@iucn.org); [manh.levan@iucn.org](mailto:manh.levan@iucn.org)

Submission Deadline: 24 February 2025

### **EVALUATION CRITERIA (see also above):**

Consultants will be evaluated based on:

1. Expert qualifications (CV's)
2. Relevant experience of the organisation(s) (project references)
3. Submitted proposal - Workplan
4. Budget proposed (Financial score)

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## ANNEX 3A: DECLARATION OF UNDERTAKING in relation to RfP <insert RfP reference>

I, the undersigned, hereby confirm that I am an authorised representative of the following organisation:

Registered Name of Organisation (the "Organisation"): \_\_\_\_\_

Registered Address (incl. country): \_\_\_\_\_

Year of Registration: \_\_\_\_\_

I hereby authorise IUCN to store and use the information included in the attached Proposal for the purpose of evaluating Proposals and selecting the Proposal IUCN deems the most favourable. I acknowledge that IUCN is required to retain the Proposal in its entirety for 10 years after then end of the resulting contract and make this available to internal and external auditors and donors as and when reasonably requested.

Where the Proposal includes Personal Data as defined by the European Union's General Data Protection Regulation (GDPR), I confirm that the Organisation has been authorised by each Data Subject to share this Data with IUCN for the purposes stated above.

I further confirm that the following statements are correct:

1. The Organisation is duly registered in accordance with all applicable laws.
2. The Organisation is fully compliant with all its tax and social security obligations.
3. The Organisation and its staff and representatives are free of any real or perceived conflicts of interest with regards to IUCN and its Mission.
4. The Organisation agrees to declare to IUCN any real or perceived emerging conflicts of interests it or any of its staff and representatives may have concerning IUCN. The Organisation acknowledges that IUCN may terminate any contracts with the Organisation that would, in IUCN sole discretion, be negatively affected by such conflicts of interests.
5. None of the Organisation's staff has ever been convicted of grave professional misconduct or any other offence concerning their professional conduct.
6. Neither the Organisation nor any of its staff and representatives have ever been convicted of fraud, corruption, money laundering, supporting terrorism or involvement in a criminal organisation.
7. The Organisation acknowledges that engagement by itself or any of its staff in fraud, corruption, money laundering, supporting terrorism or involvement in a criminal organisation will entitle IUCN to terminate any and all contracts with the Organisation with immediate effect.
8. The Organisation is a going concern and is not bankrupt or being wound up, is not having its affairs administered by the courts, has not suspended business activities, is not the subject of proceedings concerning those matters, or in any analogous situation arising from a similar procedure provided for in national legislation or regulations.
9. The Organisation complies with all applicable environmental regulatory requirements or other legal requirements relating to sustainability and environmental protection.
10. The Organisation is not included in the UN Security Council Sanctions List, EU Sanctions Map, US Office of Foreign Assets Control Sanctions List, or the World Bank listing of ineligible firms and individuals. The Organisation agrees that it will not provide direct or indirect support to firms and individuals included in these lists.
11. The Organisation has not been, is not, and will not be involved or implicated in any violations of Indigenous Peoples' rights, or injustice or abuse of human rights related to other groups or individuals, including forced evictions, violation of fundamental rights of workers as defined by the International Labour Organization's (ILO) Declaration on the Fundamental Principles and Rights at Work, child labour, sexual exploitation, sexual abuse, or sexual harassment.

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<Date, name, position and signature of authorised representative of the Proposer>

## ANNEX 3B: DECLARATION in relation to RfP <insert RfP reference>

I, the undersigned, hereby confirm that I am self-employed and able to provide the service independent of any organization or other legal entity.

Full name (as in passport/Identity card):

Home or Office (please delete as appropriate) Address (incl. country):

I hereby authorise IUCN to store and use the information included in the attached Proposal for the purpose of evaluating Proposals and selecting the Proposal IUCN deems the most favourable, including Personal Data as defined by the European Union's General Data Protection Regulation (GDPR). I acknowledge that IUCN is required to retain my Proposal in its entirety for 10 years after then end of the resulting contract and make this available to internal and external auditors and donors as and when reasonably requested.

I further confirm that the following statements are correct:

1. I am legally registered as self-employed in accordance with all applicable laws.
2. I am fully compliant with all my tax and social security obligations.
3. I am free of any real or perceived conflicts of interest with regards to IUCN and its Mission.
4. I agree to declare to IUCN any real or perceived emerging conflicts of interests I may have concerning IUCN. I acknowledge that IUCN may terminate any contracts with me that would, in IUCN sole discretion, be negatively affected by such conflicts of interests.
5. I have never been convicted of grave professional misconduct or any other offence concerning my professional conduct.
6. I have never been convicted of fraud, corruption, money laundering, supporting terrorism or involvement in a criminal organisation.
7. I acknowledge that engagement in fraud, corruption, money laundering, supporting terrorism or involvement in a criminal organisation will entitle IUCN to terminate any and all contracts with me with immediate effect.
8. I am not included in the UN Security Council Sanctions List, EU Sanctions Map, US Office of Foreign Assets Control Sanctions List, or the World Bank listing of ineligible firms and individuals. I agree that I will not provide direct or indirect support to firms and individuals included in these lists.
9. I have not been, am not, and will not be involved or implicated in any violations of Indigenous Peoples' rights, or injustice or abuse of human rights related to other groups or individuals, including forced evictions, violation of fundamental rights of workers as defined by the International Labour Organization's (ILO) Declaration on the Fundamental Principles and Rights at Work, child labour, sexual exploitation, sexual abuse, or sexual harassment.

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Date and Signature>



**Attachment 3 Contract Templates (3a: Companies; 3b: Individual consultant)**

Will be made available for the selected bidder.